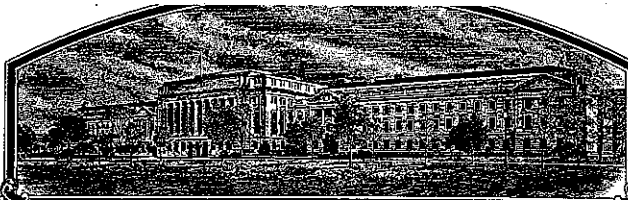


No.

200200060



THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Turf Merchants, Inc.

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSE, OR USING IT IN PRODUCING A HYBRID OR PLANT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. (34 AMENDED, 7 U.S.C. 2321 ET SEQ.)

RYEGRASS, PERENNIAL

'Pizzazz'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D.C. this nineteenth day of November, in the year two thousand and four.

Attest:



Commissioner

*Plant Variety Protection Office
Agricultural Marketing Service*

Secretary

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY DIVISION - PLANT VARIETY PROTECTION OFFICE

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

(Instructions and information collection burden statement on reverse)

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF APPLICANT(S) (as it is to appear on the Certificate) Turf Merchants, Inc.		2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER GRC		3. VARIETY NAME Pizzazz	
4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code, and Country) 33390 Tangent Loop Rd Tangent, OR 97389		5. TELEPHONE (include area code) (541) 926 - 8649		FOR OFFICIAL USE ONLY PVPO NUMBER 200200060 F I L I N G DATE January 14, 2002	
		6. FAX (include area code) (541) 926 - 4435			
7. GENUS AND SPECIES NAME Lolium perenne		8. FAMILY NAME (Botanical) Poaceae		F E E S FILING AND EXAMINATION FEE: \$ 2705	
9. CROP KIND NAME (Common name) Perennial Ryegrass				R E C DATE 1/14/2002	
10. IF THE APPLICANT NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATION (corporation, partnership, association, etc.) (Common Name) Corporation				E V CERTIFICATION FEE: \$ 432	
11. IF INCORPORATED, GIVE STATE OF INCORPORATION Oregon		12. DATE OF INCORPORATION 03 - 15 - 95		D DATE 9/24/2004	
13. NAME AND ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS Steve Tubbs 33390 Tangent Loop Rd. Tangent, OR 97389				14. TELEPHONE (include area code) (541) 926 - 8649	
				15. FAX (include area code) (541) 926 - 4435	
16. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED (Follow instructions on reverse)					
a. <input checked="" type="checkbox"/> Exhibit A. Origin and Breeding History of the Variety b. <input checked="" type="checkbox"/> Exhibit B. Statement of Distinctness c. <input checked="" type="checkbox"/> Exhibit C. Objective Description of the Variety d. <input checked="" type="checkbox"/> Exhibit D. Additional Description of the Variety (Optional) e. <input checked="" type="checkbox"/> Exhibit E. Statement of the Basis of the Applicant's Ownership f. <input checked="" type="checkbox"/> Voucher Sample (2500 viable untreated seeds or, for tuber propagated varieties verification that tissue culture will be deposited and maintained in an approved public repository) g. <input checked="" type="checkbox"/> Filing and Examination Fee (\$2,450), made payable to "Treasure of the United States" (Mail to PVPO)					
17. DOES THE APPLICANT SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY, AS A CLASS OF CERTIFIED SEED? (See Section 83(a) of the Plant Variety Protection Act)					
<input type="checkbox"/> YES (If "yes," answer items 18 and 19 below) <input checked="" type="checkbox"/> No (If "no," go to item 20)					
18. DOES THE APPLICANT SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?			19. IF "YES" TO ITEM 18, WHICH CLASSES OF PRODUCTION BEYOND BREEDERS SEED?		
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			<input checked="" type="checkbox"/> FOUNDATION <input checked="" type="checkbox"/> REGISTERED <input checked="" type="checkbox"/> CERTIFIED		
20. HAS THE VARIETY OR HYBRID PRODUCED FROM THE VARIETY BEEN RELEASED, USED, OFFERED FOR SALE, OR MARKETING IN THE U.S. OR OTHER COUNTRIES?					
<input type="checkbox"/> YES (If "yes," give names of countries and dates) <input checked="" type="checkbox"/> NO					
21. The applicant(s) declare that a viable sample of basic seed of the variety will be furnished with application and will be replenished upon request in accordance with such regulations as may be applicable, or for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate.					
The undersigned applicant(s) is (are) the owner(s) of this sexually reproduced or tuber propagated plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 42, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act.					
Applicant(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.					
SIGNATURE OF APPLICANT (Owner(s)) 			SIGNATURE OF APPLICANT (Owner(s))		
NAME (Please print or type) Steve Tubbs			NAME (Please print or type)		
CAPACITY OR TITLE President		DATE 1/10/02		CAPACITY OR TITLE	
				DATE	

Exhibit A:**1. Origin and Breeding History****Pizzazz (GRC) Perennial Ryegrass**

'Pizzazz' perennial ryegrass (*Lolium perenne* L.) is an advanced generation synthetic cultivar selected from the maternal progenies of 31 clones each of which contained a fungal endophyte (*Neotyphodium lolii*). Thirty-one related and similar clones served as additional pollen parents. Over 95 percent of the parental germplasm of these clones traces to plants selected from old turfs of the USA during 1962 to 1992. Most were found in New York, Pennsylvania, New Jersey, and Maryland. The origin of the seed used to establish these ryegrasses is unknown. However, all clones selected were over one meter in diameter and appeared to be over 30 years old. Additional sources of germplasm were selected from 'Loretta', 'Caravelle', and populations used in the development of 'Manhattan II'.

After evaluation of selected clones in mowed clonal trials, spaced-plant nurseries, disease screens, and single-plant progeny turf tests, the best performing selections were intercrossed and their progenies used to initiate many cycles of population improvement. This involved phenotypic and genotypic recurrent selection and population backcrossing.

A total of 18,160 plants were selected from 26 populations originating from 18 top performing single-plant progenies established in turf trials at Adelphia during 1994 and 1995.

The 62 parental clones of 'Pizzazz' were selected from the above nurseries and clonal tests based on a rich dark-green color, a leafy low-growth profile, freedom from stem rust (*Puccinia graminis* Pers.), crown rust (*Puccinia coronata* Corda var. *lolii* Brown), and leaf spot (*Drechslera* spp.). These 62 selected clones were moved to an isolated, replicated crossing block in November, 1997 and inoculated with stem rust. Seed was subsequently harvested from 31 clones in July, 1998. Selection was based on an attractive, dark-green color, leafy growth habit, medium reproductive

maturity, high seed yield potential, and freedom from stem rust. Seed from each of these selected clones was used to establish turf trials at Adelphia, New Jersey in the late summer of 1998, with additional seed of each progeny sent to Advanta Seeds Pacific in Albany, Oregon.

In the fall of 1998 a seed increase block containing plants of 31 progeny lines (1,860 total plants), was established in Albany, Oregon. In 1999 negative mass selection was used and 44% of the plants were rogued from the population. The remaining plants were harvested in bulk and the seed was used to establish a morphological nursery for Plant Variety Protection (PVP) measurements.

2. Breeder Seed Maintenance:

A breeder seed block was planted in isolation in 1998. Breeder seed was harvested in bulk (44%) rogued, in 1999 and is maintained in cold storage. Seed propagation is limited to three generations, one each of foundation, registered, and certified.

3. Stability and Uniformity:

Pizzazz (GRC) is a stable uniform cultivar. Stability and uniformity has been observed in two generations of multiplications; breeder seed and foundation. Turf plots of Pizzazz (GRC) have also been uniform. Neither off-type or variant plants have been observed in the multiplication process.

Exhibit B:**Novelty Statement for 'Pizzazz' (GRC) Perennial Ryegrass**

The following summary outlines the distinctive characteristics of 'Pizzazz'. The novelty of 'Pizzazz' is based on the unique combination of these characteristics. 'Pizzazz' is most similar to 'Manhattan', but may be differentiated using the following criteria:

- 1) The heading date of Pizzazz is at least 2 days later than Manhattan (tables 1A, 1B).
- 2) The anthesis date of Pizzazz is at least 1 day later than Manhattan (tables 1A, 1B).
- 3) The mature plant height of Pizzazz is at least 8 cm shorter than Manhattan (tables 1A, 1B).
- 4) Pizzazz has a spike length (upper most node of inflorescence to apex) shorter than Manhattan (tables 1A, 1B).
- 5) The flag leaf characteristics; length, height, and sheath length of Pizzazz are shorter than Manhattan (tables 1A, 1B).
- 6) The leaf blade length and height of Pizzazz are shorter than Manhattan (tables 1A, 1B).
- 7) The lemma length and glume length of Pizzazz are shorter than Manhattan (tables 2A, 2B).
- 8) Pizzazz has a spikelet length shorter than Manhattan (tables 2A, 2B).
- 9) The weight in milligrams of ten spikelets of Pizzazz is at least 7 mg less than Manhattan (tables 2A, 2B).

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number for this collection of information is (0581-0055). The time required to complete this information collection is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all of its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, and marital or family status. (Not all prohibited basis apply to all programs.) Persons with disabilities who require alternative means of communication of program information (Braille, large print, audiotape, etc.) Should contact the USDA's TARGET Center at 220-720-2600 (voice and TDD). To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call (202) 720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.

**U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURE MARKETING SERVICE
SCIENCE AND TECHNOLOGY PROGRAM
PLANT VARIETY PROTECTION OFFICE
BELTSVILLE, MD 20705**

**EXHIBIT C
(RYEGRASS)**

**OBJECTIVE DESCRIPTION OF VARIETY
RYEGRASS
(*Lolium* spp.)**

NAME OF APPLICANT(S) Turf Merchants, Inc.	TEMPORARY DESIGNATION GRC	VARIETY NAME Pizzazz
ADDRESS (Street and No., or R.F.D. No., City, State, and Zip Code) 33390 Tangent Loop Tangent, Oregon 97389		FOR OFFICIAL USE ONLY PVPO NUMBER 200200060

Place the appropriate number that describes the varietal characteristics of this variety in the boxes below. Use leading zeros when necessary (e.g. 089). Descriptions of characters should represent those that are typical for the variety. Ranges may be given also. Measured data should be for SPACED PLANTS. Give additional description for all characteristics that cannot be adequately described in the form below. Append all pertinent comparative trial and evaluation data. The symbol "►" indicates decimal.

1. SPECIES:

2 1 = *L. multiflorum* (annual or italian: includes Westerwoldicum) 2 = *L. perenne* (perennial) 3 = *L. rigidum* (includes Wimmeria)

4 = Hybrid (of species): _____ 5 = Other (Please specify): _____

2. PLOIDY:

1 1 = Diploid 2 = Tetraploid 3 = Other (Please specify): _____

3. DURATION:

3 1 = Annual or Biennial 2 = Short lived perennial (3-4 years) 3 = Perennial (more than 4 years)

STANDARD CULTIVARS

1 = GULF 2 = WIMMERIA 3 = LINN 4 = PELO
5 = NORLEA 6 = ABERYSTWYTH S-23 7 = MANHATTAN 8 = PENNFINE

4. MATURITY (50% HEADED) Use standards from above for comparison:

6 1 = Very Early 3 = Early 1 DAYS EARLIER THAN... STANDARD CULTIVAR
5 = Medium 7 = Late 5.66 DAYS LATER THAN... 7 STANDARD CULTIVAR

5. MATURE PLANT HEIGHT (Use standard cultivars from above):

71.71 cm High 12.20 cm Shorter than... 7 STANDARD CULTIVAR
11 cm Taller than... STANDARD CULTIVAR

6. **PERCENT WINTER DAMAGE** (estimated as percent of the area appearing dead. Use standard cultivars for comparison):

10. SPIKE (Continued)

200200060

- 2 1 = Spikelet length nearly equal to outer glumes
 2 = Spikelet length much longer than outer glumes

11. COLEOPTILE:

73.60 % Plants with anthocyanin in coleoptile

12. ANTHOR COLOR:

 % Plants with white anthers 97.00 % Plants with yellow anthers
3.00 % Plants with purple anthers

13. ROOT AND PLANT CHARACTERISTICS:

 % Plants with prostrate growth habit
0.00 % Plants with fluorescent roots
100 % Plants with upright growth habit

14. SEED:

1804 mg per 1000 seeds 50.63 mm Total length of 10 seeds 12.00 mm Total Width of 10 seeds

15. DISEASE (0 = Not Tested, 2 = Highly susceptible, 4 = Moderately Susceptible, 5 = Moderately Resistant, 8 = Highly Resistant)

0 Crown Rust (*Puccinia coronata*) 0 Dollar Spot (*Sclerotinia*)
0 Brown Patch (*Rhizoctonia*) 0 Leaf Spot (*Helminthosporium*)
0 Mildew 0 Snow Mold (*Typhula*)
0 Red Thread (*Corticium*) Other (Please Specify):

16. INSECT: (0 = Not Tested, 2 = Highly susceptible, 4 = Moderately Susceptible, 5 = Moderately Resistant, 8 = Highly Resistant)

 Please Specify:

17. Give resemblance value in left column and variety code number in right column for variety with which comparison is made (1= less than, 2 = same as, 3 = more erect, more resistant, denser, more persistent, darker or greater height):

Resemblance	Character	Similar Variety
<u>2</u>	Plant Habit (erectness)	<u>7</u> 1 = GULF
<u> </u>	Tillering	<u> </u> 2 = WIMMERIA 62
<u> </u>	Winter Hardiness	<u> </u> 3 = LINN
<u> </u>	High Temperature Stress Resistance	<u> </u> 4 = PELO
<u>3</u>	Turf Persistence	<u>7</u> 5 = NORLEA
<u>3</u>	Plant Color	<u>7</u> 6 = ABERYSTWYTH S-23
<u>1</u>	Vertical Seedling Growth Rate	<u>7</u> 7 = MANHATTAN
<u>3</u>	Crown Density	<u>7</u> 8 = PENNFINE
<u>3</u>	Mower Shredding Resistance	<u>7</u>

200200060

18. GIVE AREA OF ADAPTATION AND INTENDED USE: Pizzazz is adapted to regions where perennial ryegrass is used for turf.

19. GIVE AREA TEST RESULTS PRESENTED FROM: Albany, Oregon

20. COMMENTS:

A morphological nursery designated 99PVPLP1 was established in September of 1999, in Albany, Oregon. Experimental design consisted of 19 entries; 3 replications per entry; 20 plants per replication; for a total of 60 plants per entry. Charger, and Manhattan were used as standards. Plants were established on 2.5 foot centers with a skip row between replications and between entries.

The nursery received 30 pounds of nitrogen per acre rate following establishment and 50 pounds of nitrogen per acre per year in 2000 and 2001. The fertilizer source was 15-15-15 and was applied as a split application with $\frac{1}{2}$ applied in the spring and $\frac{1}{2}$ in the fall. The nursery was sprayed twice each spring, 3 weeks between applications, with Tilt (2 oz/acre rate), to prevent stem rust. One pound of Karmex per acre rate was applied during late summer to prevent emergence of volunteer seedlings.

Data was analyzed using analysis of variance for a randomized complete block design. Means were calculated for each replication and then analyzed.

Exhibit D:**Additional Description****Pizzazz (GRC) Perennial Ryegrass**

Pizzazz is an improved turf-type perennial ryegrass. It exhibits a dwarf growth habit and a blue green genetic color compared to Manhattan (tables 1A, 1B). Pizzazz has a medium-late maturity compared to Manhattan and Charger (tables 1A, 1B). Pizzazz has a shorter mature plant height than Charger and Manhattan (tables 1A, 1B). The spike length of Pizzazz is shorter compared to Manhattan and Charger (tables 1A, 1B). The flag leaf characteristics; sheath length and flag leaf length are shorter for Pizzazz than Manhattan and Charger (tables 1A, 1B). The leaf blade characteristics of Pizzazz; length, height, and sheath length are shorter compared to Charger (tables 1A, 1B). The leaf sheath length of Pizzazz is also shorter than Manhattan (tables 1A, 1B). Pizzazz has a shorter lemma and glume length than Manhattan and Charger (tables 2A, 2B). Pizzazz has fewer florets per spikelet compared to Charger (tables 2A, 2B). The spikelet length for Pizzazz is shorter than Charger and Manhattan (tables 2A, 2B). Pizzazz has a lower weight of ten spikelets than Manhattan and Charger (tables 2A, 2B). The spike length (lower most spikelet to apex) is shorter in Pizzazz compared to Manhattan and Charger (tables 2A, 2B). Pizzazz expressed a higher frequency of anthocyanin in the seedling coleoptile compared to Manhattan and Charger (tables 3A, 3B). The seed weight of Pizzazz is less than Manhattan, but greater than Charger (tables 3A, 3B). In the second year of growth, Pizzazz expresses a higher level of inflorescence in re-growth compared to Manhattan and Charger (tables 3A, 3B).

Table 1A 2000 Morphological Data

Cultivar	Heading Date (days after April 1)	Anthesis Date (days after April 1)	Genetic Color	Mature Plant Height (cm)	Plant Width (cm)	Panicle Length (cm)	Flag Leaf Length (cm)	Flag Leaf Width (cm)	Flag Leaf Height (cm)	Flag Leaf Sheath Length (cm)	Flag Leaf Internode Length (cm)	Leaf Blade Length (cm)	Leaf Blade Width (cm)	Leaf Blade Height (cm)	Leaf Sheath Length (cm)
GRC	46.33	70.00	5.67	71.70	19.93	41.83	30.07	6.00	41.77	11.67	12.57	27.57	5.33	25.93	8.37
Charger	32.67	59.00	4.00	80.63	19.30	49.90	32.53	6.00	43.03	13.03	13.07	28.60	5.00	25.77	9.00
Manhattan	40.67	66.00	3.67	83.90	22.27	49.73	34.83	5.67	47.80	13.73	14.13	31.57	5.33	29.23	9.93
LSD (5%)	1.91	1.91	.074	4.85	1.65	2.62	1.88	0.65	3.25	0.58	1.37	2.01	0.53	2.63	0.55
C.V.	3.42	2.12	10.86	4.68	5.87	4.18	4.30	8.53	5.59	3.31	7.84	5.01	7.49	7.44	4.47

Measurements taken in Albany, Oregon; 3 reps; 20 plants/rep = 60 data points.

■ Cultivar under evaluation.

■ Significant difference over two years one location.

■ Significant difference over one year one location.

Table 1B 2001 Morphological Data

Cultivar	Heading Date (days after April 1)	Anthesis Date (days after April 1)	Genetic Color	Mature Plant Height (cm)	Plant Width (cm)	Panicle Length (cm)	Flag Leaf Length (cm)	Flag Leaf Width (cm)	Flag Leaf Height (cm)	Flag Leaf Sheath Length (cm)	Flag Leaf Internode Length (cm)	Leaf Blade Length (cm)	Leaf Blade Width (cm)	Leaf Blade Height (cm)	Leaf Sheath Length (cm)
GRC	47.67	66.00	5.00	59.87	24.23	32.23	23.50	4.00	35.77	10.40	8.63	22.77	4.00	24.77	7.17
Charger	36.33	59.00	5.00	69.43	24.73	39.43	26.40	4.00	40.33	11.33	11.03	27.73	3.67	25.70	8.17
Manhattan	45.00	64.67	4.33	68.13	26.77	36.90	27.40	4.00	42.97	12.03	9.67	27.60	4.33	28.93	8.63
LSD (5%)	1.61	1.38	0.30	3.91	4.20	2.23	1.37	0.43	2.66	0.59	1.11	1.53	0.50	2.22	0.52
C.V.	2.64	1.57	4.42	4.45	11.86	4.64	4.01	8.02	4.89	3.87	8.40	4.33	8.95	6.10	4.75

Measurements taken in Albany, Oregon; 3 reps; 20 plants/rep = 60 data points.

■ Cultivar under evaluation.

■ Significant difference over two years one location.

■ Significant difference over one year one location.

200200060

Table 2A

2000 Laboratory Morphological Data

Cultivar	Lemma Length (mm)	Lemma Width (mm)	Glume Length (mm)	Florets per Spikelet	Spikelet Length (mm)	Spikelets per Panicle	Weight of 10 Spikelets (mg)	Length of Panicle From Lower Most Spikelet to Tip (cm)
GRC	5.63	1.20	8.00	9.00	14.77	25.33	69.33	19.90
Charger	6.43	1.27	9.97	10.00	17.80	23.67	126.00	24.17
Manhattan	6.20	1.30	9.27	10.00	17.30	26.33	95.00	24.80
LSD (5%)	0.21	0.07	0.57	0.97	1.15	1.90	14.25	1.28
C.V.	2.39	3.90	4.58	7.55	5.08	5.61	11.43	4.25

Measurements taken in Albany, Oregon; 3 reps; 20 plants/rep = 60 data points.

■ Cultivar under evaluation.

■ Significant difference over two years one location.

■ Significant difference over one year one location.

Table 2B

2001 Laboratory Morphological Data

Cultivar	Lemma Length (mm)	Lemma Width (mm)	Glume Length (mm)	Florets per Spikelet	Spikelet Length (mm)	Spikelets per Panicle	Weight of 10 Spikelets (mg)	Length of Panicle From Lower Most Spikelet to Tip (cm)
GRC	5.27	1.20	6.50	6.33	10.73	24.00	41.33	15.63
Charger	6.13	1.30	8.20	7.67	13.93	22.67	77.67	20.00
Manhattan	5.77	1.30	7.23	6.00	11.67	25.33	49.00	19.40
LSD (5%)	0.23	0.10	0.46	0.90	0.63	1.36	7.62	1.03
C.V.	2.88	5.78	4.53	10.72	3.92	4.08	11.02	4.23

Measurements taken in Albany, Oregon; 3 reps; 20 plants/rep = 60 data points.

■ Cultivar under evaluation.

■ Significant difference over two years one location.

■ Significant difference over one year one location.

Table 3A

2000 Additional Morphological Measurements of the Panicle

Cultivar	Panicle Branch Pubescence % Present	Lemma Awn % Present	Leaf Blade Anthocyanin % Present	Seedling Anthocyanin % Present	Radicle of Panicle % Smooth	Seed Weight (mg per 1000 seeds)	Anther Color % Purple	Panicle Color % Purple	Panicle Re-Growth in Fall % Re-Grown	Flag Leaf Boot Stage % Re-curve	Flag Leaf Boot Stage % Horizontal	Flag Leaf Boot Stage % Semi-Erect	Flag Leaf Boot Stage % Erect
GRC	0	0	0	74	100	1804	3	10	38	0	25	62	13
Charger	0	0	0	59	100	1541	3	7	55	0	30	53	17
Manhattan	0	0	0	26	100	2102	2	12	63	0	18	52	30

Measurements taken in Albany, Oregon

3 reps; 20 plants/rep = 60 data points

■ Cultivar under evaluation.

Table 3B

2001 Additional Morphological Measurements of the Panicle

Cultivar	Panicle Branch Pubescence % Present	Lemma Awn % Present	Leaf Blade Anthocyanin % Present	Seedling Anthocyanin % Present	Radicle of Panicle % Smooth	Seed Weight (mg per 1000 seeds)	Anther Color % Purple	Panicle Color % Purple	Panicle Re-Growth in Fall % Re-Grown	Flag Leaf Boot Stage % Re-curve	Flag Leaf Boot Stage % Horizontal	Flag Leaf Boot Stage % Semi-Erect	Flag Leaf Boot Stage % Erect
GRC	0	0	0	68	100	1883	3	8	17	2	6	72	20
Charger	0	0	0	35	100	1647	3	5	5	2	7	75	16
Manhattan	0	0	0	25	100	2136	3	3	2	0	8	75	17

Measurements taken in Albany, Oregon

3 reps; 20 plants/rep = 60 data points

■ Cultivar under evaluation.

200200060

U.S. DEPARTMENT OF AGRICULTURE
 AGRICULTURAL MARKETING SERVICE
 SCIENCE AND TECHNOLOGY DIVISION - PLANT VARIETY PROTECTION OFFICE

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

EXHIBIT E

STATEMENT OF THE BASIS OF OWNERSHIP

1. NAME OF APPLICANT(S) Turf Merchants, Inc		2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER GRC	3. VARIETY NAME Pizzazz
4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code, and Country) 33390 Tangent Loop Rd. Tangent, OR 97389		5. TELEPHONE (include area code) (541) 926 - 8649	6. FAX (include area code) (541) 926 - 4435
		7. PVPO NUMBER 200200060	
8. Does the applicant own all rights to the variety? Mark an "X" in appropriate block. If no, please explain. <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO			
9. Is the applicant (individual or company) a U.S. national or U.S. based company? If no, give name of country _____ <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO			
10. Is the applicant the original breeder? If no, please answer the following: a. If original rights to variety were owned by individual (s): Is (are) the original breeder(s) a U.S. national(s)? If no give name of country _____ <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO b. If original rights to variety were owned by a company: Is the original breeder(s) U.S. based company? If no give name of country _____ <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO			
11. Additional explanation on ownership (If needed, use reverse for extra space):			

PLEASE NOTE:

Plant variety protection can be afforded only to owners (not licensees) who meet one of the following criteria:

- If the rights to the variety are owned by the original breeder, that person must be a U.S. national, national of a UPOV member country, or national of a country which affords similar protection to nationals of the U.S. for the same genus and species.
- If the rights to the variety are owned by the company which employed the original breeder(s), the company must be U.S. based, owned by nationals of a UPOV member country, or owned by nationals of a country which affords similar protection to nationals of the U.S. for the same genus and species.
- If the applicant is an owner who is not the original breeder, both the original breeder and the applicant must meet one of the above criteria.

The original breeder may be the individual or company who directed final breeding. See Section 41(a)(2) of the Plant Variety Protection Act for definition.

Public reporting burden for this collection of information is estimated to average 10 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Agriculture, clearance Officer, OIRM, AG Box 7630, Jamie L. Whitten Building, Washington D.C. 20250. When replying, refer to OMB No. 0581-0055 and form number in your letter.

Under the PRA of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

The U.S. Department Of Agriculture (USDA) prohibits discrimination in its programs on the basis, color, national origin, sex, religion, age, disability, political beliefs, and marital or familial status (Not all prohibited basis apply to all programs). Persons with disabilities who require alternative means for communication of program information (braille, large print, audiotape, etc.) should contact the USDA Office of Communications at (202) 720-2791.

To file a complaint, write the Secretary of Agriculture, U.S. Department of Agriculture, Washington D.C., 20250, or call (202) 720-7327 (Voice) or (202) 720-1127 (TDD). USDA is an equal employment opportunity employer.

STD-470-E (03-96)